

South Dakota's Long-Term Vision Strategy

Section 303(d) of the CWA provides for an opportunity to more effectively restore and protect South Dakota's waters by using a systematic process of prioritizing TMDL development and implementing alternative approaches and protection activities. A Long-Term Vision (hereafter referred to as the Vision) was developed by the EPA and six actions were identified as being important to this process. South Dakota's strategy includes the six actions discussed below.

Engagement

The Vision for the CWA 303(d) Program asks EPA and the states to actively engage the public and other stakeholders to improve and protect water quality, as demonstrated by documented, inclusive, transparent, and consistent communication; requesting and sharing feedback on proposed approaches; and enhanced understanding of program objectives.

South Dakota uses multiple means to engage the public and stakeholders and these will be used as part of the Vision. The Nonpoint Source Task Force will be a primary means of getting information about the Vision to the stakeholders. The NPS Task Force is a citizen's advisory group containing approximately twenty-five agencies, organizations, and tribal representatives. The NPS Task Force meetings are open to the general public. The NPS Task Force provides a forum for the exchange of information and activities about NPS related activities as well as providing recommendations for projects applying for CWA Section 319 funds. A presentation about the Vision was given by DENR to the NPS Task Force on December 9, 2014. The EPA also participated in the meeting and responded to questions during the presentation. There was much discussion of the Vision, the TMDL Prioritization Scheme, and how the Vision would impact NPS Implementation Projects. A presentation was also given during the NPS Coordinators meeting on April 22, 2015. Additional presentations about the Vision will occur as needed.

A September 2015 EPA/State joint Nonpoint Source Pollution and Water Quality Meeting was held in Rapid City, South Dakota and brought together the states in EPA Region VIII as well as other regional interests. The Vision plans for each state were presented and each state responded to questions/comments about their Vision plan.

The public notice process used to announce the availability of the Integrated Report is the primary forum used to engage the public regarding the Vision Strategy. The public notice process allows the public and stakeholders the opportunity to formally comment on contents of the IR and the Vision Strategy. Additional efforts to inform the public and stakeholders about the Vision will occur in response to requests by stakeholders and the public.

Some elements of the Vision, such as Alternative or Protection activities, may be incorporated into NPS Implementation projects. If these projects request CWA Section 319 funds, these projects will be presented to the NPS Task Force as well as the South Dakota Board of Water and Natural Resources for review and approval of funding. This provides additional opportunities for public comment. The Vision Strategy will also be included in the South Dakota NPS Management Plan.

Prioritization

The Vision prioritization process focused on waters considered *Priority 1* for TMDL development following the criteria described in the 2020 IR. The original Vision priority waters were those not supporting designated beneficial uses for bacteria, TSS, chlorophyll *a*, temperature (waters designated cold water fish life propagation), or mercury in fish tissue. EPA declared an open season for states to make changes to the Vision priority waters list. States revised Vision priority lists were due to EPA in August of 2018. South Dakota removed 29 waters from the original Vision priority list during the open season. The main changes included removal of waters for chlorophyll *a* and those delisted during the 2018 and 2020 reporting cycles. In addition, seven waters were removed due to TMDL development data needs and unspecified reasons. The new Vision priority list includes 43 waterbodies with varying TMDL completion status (2020 IR). South Dakota is on pace to complete Vision priority TMDLs by September 30, 2022.

Protection

This element is intended to encourage management actions that prevent impairments to waters not currently impaired. South Dakota is receptive to this concept and will consider providing technical or financial assistance to these types of projects. There is no anticipation of a large number of requests for “protection” activities and DENR will consider each as they become known. Requests for funding for CWA Section 319 funds will follow the same protocols as other projects requesting these funds and the “protection” activities must be identified as such. Protection activities within an existing implementation project must also identify those activities as “protection” activities.

Integration

DENR has very good working relationships with other programs, and regional, state and federal agencies. The NPS Task Force is a major forum for interaction between the various federal, state, regional, and local agencies as well as the general public. The Natural Resources Conservation Service (NRCS) is the primary federal agency that DENR interacts with on NPS implementation projects. CWA Section 319 funds are often used in concert with NRCS funds to more efficiently use both funding sources to combat NPS pollution. The U.S. Forest Service, USBOR, or Bureau of Land Management may also be involved in DENR’s NPS control effort if activities will occur or impact lands managed by these agencies. In addition, the USGS provides much needed data about water flow and water quality in certain rivers and streams in South Dakota and has been a partner in various water quality assessment activities.

Regional or local agencies are often project sponsors for NPS assessment or implementation projects. Water development districts, conservation districts, cities, and locally based partnerships have all interacted with DENR and have integrated into NPS assessment and implementation projects. Universities have been involved in South Dakota’s NPS control effort through research studies that help the state assess water or biological quality of our streams.

Alternatives

Alternative approaches that incorporate adaptive management or are tailored to specific circumstances where such approaches are better suited to implement priority watershed or water actions to restoration may be used in addition to TMDLs. Generally, DENR currently requires a TMDL to be developed before funds are allocated towards a NPS 319 Implementation Project. Henceforth, consideration will be given to projects or cases where a relatively simple or straight-forward solution can be reached without going through the TMDL development process. Requests for funding for CWA Section 319 funds will follow the same protocols as other projects requesting these funds and the “alternative” activities must be identified as such. DENR also supports an Information and Education Program that may be

useful in circumstances where public outreach and education can help to identify alternative approaches to resolving water quality issues.

Assessment

The goal of this element is to identify the extent of healthy and CWA Section 303(d) impaired waters in each State's priority watersheds or waters through site-specific assessments. South Dakota uses a number of methods and data sources to assess waters included in the Vision.

- Fixed ambient monitoring of rivers and streams. The major rivers and streams in the state are sampled monthly;
- Data are also obtained from regional sources or federal agencies (e.g. the USGS or volunteer monitoring programs);
- A subset of lakes are sampled multiple times annually as part of the Statewide Lakes Assessment (SWLA) project. This effort involves a targeted approach using a tiered prioritization scheme.
- Intensive lake and stream monitoring is also conducted on a two year rotating basis with in major river basins or specific geographic areas through partnerships with water resource entities.
- South Dakota engages in random statistical surveys through an intensification with EPA's National Lakes Assessment and National Rivers and Streams Assessment. The assessment design allows SD to make inferences about the condition of lakes and streams in the state.
- Site-specific assessments are often used during TMDL studies if more general data methods/surveys do not provide adequate data. NPS implementation projects may also use site-specific studies to document water quality improvements due to NPS implementation project activities.

South Dakota's assessment strategies provide water quality data for 303(d) assessment and TMDL development. Several monitoring and assessment strategies are designed to provide flexibility to meet data needs of individual waters as 303(d) priorities change. Intensive monitoring and assessment strategies will help to guide future Vision priorities including protection and alternative approaches.

DENR continues to work with EPA region VIII to develop nutrient based chlorophyll targets for lake 303(d) assessments. Protective chlorophyll targets will serve as TMDL endpoints to evaluate nutrient-related narrative standards and associated use attainment. During the 2020 IR cycle protective thresholds were available for lakes west of the Missouri River including the Black Hills. Chlorophyll targets are still being developed for lakes east of the Missouri River. South Dakota will likely focus on lake chlorophyll impairment and TMDL development in the next Vision cycle.

South Dakota has a well-documented history of doing site-specific assessments and will continue to develop and schedule assessment projects where data are deemed lacking for waters needing a TMDL. Site-specific assessments are either done by DENR personnel if the waterbody is within reasonable travel distance or by a regional entity/contractor if funds are available and direct DENR involvement is not the best option. Computer modelling, scientific literature, and reference conditions may also be used to assess waters.

Vision Summary

The South Dakota strategy for the Long-Term Vision under the CWA Section 303(d) Program contains the six elements stressed by EPA. The primary goal is to prioritize TMDL development for the Vision where implementation activities can be focused to provide a better chance of improving water quality. South Dakota may also prioritize TMDLs that are considered of state importance and require immediate action. The following tables include the original Vision priority waters and associated status.

South Dakota's Original Vision Priority Waters and Status

ASSESSMENT UNIT ID (AUID)	CAUSE NAME	STATUS
SD-BA-L-WAGGONER_01	Chlorophyll a	Dropped 2018 open season chlorophyll target development
SD-BF-BEAR_BUTTE_01	Temperature	Dropped 2018 open season-meeting standards
SD-BF-BEAR_BUTTE_02	Temperature	Dropped 2018 open season-meeting standards
SD-BF-L-NEWELL_01	Mercury in fish	TMDL Completed and approved
SD-BF-R-BELLE_FOURCHE_01	<i>E. coli</i>	TMDL Completed and approved
SD-BF-R-DEADWOOD_01	<i>E. coli</i>	Drafted-EPA review
SD-BF-R-WHITEWOOD_04	<i>E. coli</i>	Draft-development
SD-BF-R-WHITEWOOD_06	<i>E. coli</i>	Dropped Delisted 2020 IR
SD-BF-WHITEWOOD_01	Temperature	Dropped 2018 open season-meeting standards
SD-BS-L-BITTER_01	Mercury in fish	TMDL Completed and approved
SD-BS-L-BULLHEAD_01	Chlorophyll a	Dropped 2018 open season chlorophyll target development
SD-BS-L-ISLAND_N_01	Mercury in fish	TMDL Completed and approved
SD-BS-L-LARDY_01	Mercury in fish	TMDL Completed and approved
SD-BS-L-LONG_COD_01	Mercury in fish	TMDL Completed and approved
SD-BS-L-MID_LYNN_01	Mercury in fish	TMDL Completed and approved
SD-BS-L-MINNEWASTA_01	Mercury in fish	TMDL Completed and approved
SD-BS-L-MINNEWASTA_01	Chlorophyll a	Dropped 2018 open season chlorophyll target development
SD-BS-L-OPITZ_01	Mercury in fish	TMDL Completed and approved
SD-BS-L-REID_01	Mercury in fish	TMDL Completed and approved
SD-BS-L-SWAN_01	Mercury in fish	TMDL Completed and approved
SD-BS-L-TWIN_01	Mercury in fish	TMDL Completed and approved
SD-BS-L-TWIN_02	Mercury in fish	TMDL Completed and approved
SD-BS-R-BEAVER_02	<i>E. coli</i>	Fecal coliform TMDL Translation
SD-BS-R-BIG_SIOUX_01	<i>E. coli</i>	Drafted-EPA review
SD-BS-R-BIG_SIOUX_05	TSS	No progress
SD-BS-R-BIG_SIOUX_06	TSS	No progress
SD-BS-R-BIG_SIOUX_13	TSS	Dropped 2018 open season-unspecified
SD-BS-R-BIG_SIOUX_14	TSS	Dropped 2018 open season-unspecified
SD-BS-R-BRULE_01	TSS	Draft-development
SD-BS-R-BRULE_01	<i>E. coli</i>	Fecal coliform TMDL Translation
SD-BS-R-EAST_BRULE_01	TSS	Dropped 2018 open season-data needs

South Dakota's Original Vision Priority Waters and Status (continued)

ASSESSMENT UNIT ID (AUID)	CAUSE NAME	STATUS
SD-BS-R-SIXMILE_01	TSS	Dropped 2018 open season-meeting standards
SD-BS-R-SIXMILE_01	<i>E. coli</i>	Draft-development
SD-BS-R-SKUNK_01	TSS	Dropped 2018 open season-meeting standards
SD-BS-R-SKUNK_01	<i>E. coli</i>	Draft-development
SD-BS-R-UNION_01	TSS	Dropped 2018 open season-data needs
SD-CH-R-BATTLE_01_USGS	TSS	Dropped 2018 open season-meeting standards
SD-CH-R-BATTLE_02	Temperature	Dropped 2018 open season-meeting standards
SD-CH-R-CHEYENNE_02	TSS	Dropped 2018 open season-meeting standards
SD-CH-R-CHEYENNE_02	<i>E. coli</i>	Dropped 2018 open season-unspecified
SD-CH-R-GRACE_COOLIDGE_01	Temperature	Dropped 2018 open season-meeting standards
SD-CH-R-GRIZZLY_BEAR_01_USGS	Temperature	Dropped 2018 open season-meeting standards
SD-CH-R-RAPID_04	<i>E. coli</i>	Fecal coliform TMDL Translation
SD-CH-R-SPRING_01	TSS	Dropped 2018 open season-meeting standards
SD-CH-R-SPRING_01	<i>E. coli</i>	No progress
SD-JA-L-BIERMAN_01	Chlorophyll a	Dropped 2018 open season chlorophyll target development
SD-JA-L-CARTHAGE_01	Chlorophyll a	Dropped 2018 open season chlorophyll target development
SD-JA-L-ELM_01	Mercury in fish	TMDL Completed and approved
SD-JA-L-ROSETTE_01	Chlorophyll a	Dropped 2018 open season chlorophyll target development
SD-JA-L-TWIN_01	Chlorophyll a	Dropped 2018 open season chlorophyll target development
SD-JA-R-FIRESTEEL_01	<i>E. coli</i>	Dropped 2018 open season-unspecified
SD-JA-R-JAMES_08	TSS	Draft-development
SD-JA-R-JAMES_09	TSS	Draft-development
SD-JA-R-JAMES_10	TSS	Draft-development
SD-JA-R-JAMES_11	TSS	Draft-development

South Dakota's Original Vision Priority Waters and Status (continued)

ASSESSMENT UNIT ID (AUID)	CAUSE NAME	STATUS
SD-JA-R-WOLF_01	<i>E. coli</i>	Drafted-EPA review
SD-JA-R-WOLF_02	<i>E. coli</i>	Drafted-EPA review
SD-MI-L-HURLEY_01	Mercury in fish	TMDL Completed and approved
SD-MI-L-POCASSE_01	Chlorophyll a	Dropped 2018 open season chlorophyll target development
SD-MI-L-ROOSEVELT_01	Mercury in fish	TMDL Completed and approved
SD-MN-R-WHETSTONE-S-FORK-01	<i>E. coli</i>	Draft-development
SD-MN-R-WHETSTONE-S-FORK-02	<i>E. coli</i>	Draft-development
SD-MN-R-YELLOW_BANK_N_FORK_01	<i>E. coli</i>	TMDL Completed and approved
SD-MN-R-YELLOW_BANK_S_FORK_01	<i>E. coli</i>	TMDL Completed and approved
SD-MU-L-COAL_SPRINGS_01	Mercury in fish	TMDL Completed and approved
SD-NI-L-RAHN_01	Chlorophyll a	Dropped 2018 open season chlorophyll target development
SD-VM-L-THOMPSON_01	Chlorophyll a	Dropped 2018 open season chlorophyll target development
SD-VM-R-LONG_01	<i>E. coli</i>	Drafted-EPA review
SD-VM-R-VERMILLION_03	<i>E. coli</i>	Draft-development
SD-VM-R-VERMILLION_E_FORK_01	<i>E. coli</i>	Fecal coliform TMDL Translation
SD-VM-R-VERMILLION_E_FORK_02	<i>E. coli</i>	Dropped 2018 open season-meeting standards
SD-VM-R-VERMILLION_W_FORK_01_USGS	<i>E. coli</i>	TMDL Completed and approved